AMENDMENTS TO THE CLAIMS

1. (currently amended) A method to determine the presence of an electrical machine a brushless DC (BLDC) motor connected to an electronic control circuit, the electronic control circuit operative to control the BLDC motor having one or more magnetic components, the method comprising:

generating a pulse signal to a selected driven phase winding through at least four inverter transistors configured within the electronic control circuit; and

detecting said pulse signal for the purpose of one of a signal presence and absence thereof at a non-driven phase winding as a result of said pulse signal,

wherein presence of said signal at said non-driven phase winding is indicative of the motor connected to the electronic control circuit.

2. (original) The method of claim 1, wherein absence of said signal at said non-driven phase winding is indicative of the electric machine lacking connection with the electronic control circuit.

3. (original) The method of claim 1, wherein said generating said pulse signal includes an arbitrary sequence of pulses.

4. (original) The method of claim 1, wherein said generating said pulse signal includes one of a random sequence and a pseudo random sequence of pulses.

5. (cancelled)

6. (original) The method of claim 1, wherein said signal non-driven phase winding includes non-driven phase windings adjacent said driven phase winding.

7. (cancelled)

8. (currently amended) The method of claim 3, wherein the electronic control circuit is receptive to said arbitrary sequence of signals and feedback signals from the electrical ~~machine~~ motor.

9. (original) The method of claim 8, wherein the electronic control circuit is configured to determine signal presence or absence thereof at said non-driven phase winding.

10. (currently amended) The method of claim ~~7~~1, further including:

activating only two of the at least four inverter transistors to generate pulse signals to determine the presence of the motor.

11. (currently amended) The method of claim ~~7~~1, further including:

activating three of the at least four inverter transistors to generate pulses to determine the presence of the motor.

12. (currently amended) The method of claim ~~7~~1, further including:

enabling all of the at least four inverter transistors for one of a single pulse and a plurality of pulses for the purpose of detection of one of the motor or a load.

13. (original) The method of claim 1, wherein a detection duty cycle is less than 50% such that a current in said selected driven phase winding always decays to zero during said detecting said pulse.

14. (original) The method of claim 1, wherein a detection duty cycle is greater than 50% such that a current in said selected driven phase winding never decays to zero and accumulates over successive sequences of said detecting said pulse.

15. (currently amended) A system to determine the presence of ~~an electrical~~

machine a brushless DC (BLDC) motor connected to an electronic control circuit, the electronic control circuit operative to control the BLDC motor having one or more magnetic components, comprising:

a stator having a plurality of phase windings; and

an the electronic control circuit configured to generate a pulse signal to a selected driven phase winding through at least four inverter transistors configured within the electronic control circuit, said pulse signal detected for the purpose of one of a signal presence and absence thereof at a non-driven phase winding as a result of said pulse signal, wherein presence of said signal at said non-driven phase winding is indicative of the motor connected to the electronic control circuit.

16. (original) The system of claim 15, wherein absence of said signal at said non-driven phase winding is indicative of the electric machine lacking connection with the electronic control circuit.

17. (original) The system of claim 15, wherein generating said pulse signal includes an arbitrary sequence of pulses.

18. (original) The system of claim 15, wherein generating said pulse signal includes one of a random sequence and a pseudo random sequence of pulses.

19. (cancelled)

20. (original) The system of claim 15, wherein said signal non-driven phase winding includes non-driven phase windings adjacent said driven phase winding.

21. (cancelled)

22. (currently amended) The system of claim 1817, wherein the electronic

control circuit is receptive to said arbitrary sequence of signals and feedback signals from the ~~electrical machine~~motor.

23. (original) The system of claim 22, wherein the electronic control circuit is configured to determine signal presence or absence thereof at said non-driven phase winding.

24. (currently amended) The system of claim ~~22~~15, wherein only two of the at least four inverter transistors are activated to generate pulse signals to determine the presence of the motor.

25. (currently amended) The system of claim ~~22~~15, wherein three of the at least four inverter transistors are activated to generate pulses to determine the presence of the motor.

26. (currently amended) The system of claim ~~20~~15, wherein all of the at least four inverter transistors are enabled for one of a single pulse and a plurality of pulses for the purpose of detection of one of the motor or a load.

27. (original) The system of claim 15, wherein a detection duty cycle is less than 50% such that a current in said selected driven phase winding always decays to zero during said detecting said pulse.

28. (original) The system of claim 15, wherein a detection duty cycle is greater than 50% such that a current in said selected driven phase winding never decays to zero and accumulates over successive sequences of said detecting said pulse.

29. (currently amended) A storage medium encoded with a machine-readable computer program code, said code including instructions for causing a computer to

implement a method for determining the presence of ~~an electrical machine~~ a brushless DC (BLDC) motor connected to an electronic control circuit, the electronic control circuit operative to control the BLDC motor having one or more magnetic components, the method comprising:

generating a pulse signal to a selected driven phase winding through at least four inverter transistors configured within the electronic control circuit; and

detecting said pulse signal for the purpose of one of a signal presence and absence thereof at a non-driven phase winding as a result of said pulse signal,

wherein presence of said signal at said non-driven phase winding is indicative of the motor connected to the electronic control circuit.